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ORIGINAL ARTICLES:		PAGE
THE TREATMENT OF HEMORRHOIDS. By John B. Deaver, M. D.....	649	
THE TREATMENT OF ISCHIO-RECTAL ABSCESS AND FISTULA-IN-ANO, By Henry R. Wharton, M. D.....	651	
EDITORIAL:		
DIPHTHERIA AND PSEUDO-DIPHTHERIA .....	658	
ANNOTATIONS.....	659	
LETTERS TO THE EDITOR:		
Convenient Remedies from Field, Garden and Kitchen. <i>Louis Lewis M. D.</i> .....	660	
Impotence Following Typhoid Fever. <i>R. H. G. Rhea, Jr., M. D.</i> .....	665	
How to Cure Gleet. <i>R. L. Allen</i> .....	665	
A Possible Electrical Treatment for Cholera. <i>S. V. Clevenger</i> .....	665	
SOCIETY NOTES:		
The Clinical Society of Maryland.....	666	
MEDICAL DIGEST:		
Hernia—Cancer, an Infectious Miasmatic Disease ( <i>Francois Hue</i> )—Does the Prevailing Method of Hydrotherapy Need Reform ( <i>Deutsche Medicinal Zeitung</i> )—Erythromelalgia ( <i>Prager Medicinische Wochenschrift</i> )—Clinical Forms of Ferocious Cholera, During the Epidemic of 1892 in Paris ( <i>La Medicine Moderne</i> ) .....	668-672	
NOTES AND ITEMS.....	iv, x	

## THE TREATMENT OF HEMORRHOIDS.

By JOHN B. DEAVER, M. D.

[Read before the Philadelphia County Medical Society, November 23, 1892.]

IN opening the discussion upon the treatment of hemorrhoids I will confine the few remarks I have to make to what I consider the most essential points, and first a word as to the formation of this form of tumor and its varieties.

To understand the origin of piles we must be familiar with the arrangement of the veins of the rectum. The hemorrhoidal veins number three—the superior, middle, and inferior. The superior empty into the portal system, while the middle and inferior empty into the general venous system. In the upper part of the rectum they are arranged longitudinally, while below they are arranged circularly in the shape of a plexus, the hemorrhoidal, situated between the mucous and muscular coats. As the hemorrhoidal veins are destitute of valves, also owing to the office of the rectum and to the erect position, these veins are very liable to become dilated and varicose.

To speak of a dilated and varicose condition of the veins in themselves constituting a hemorrhoid is a mistake. The first step in the formation of a hemor-

rhoid is a dilated and varicose condition of the veins, I admit, but, in addition to this condition of the veins, there must be associated with it inflammatory exudate.

Hemorrhoids are divided into three varieties—external, internal and intero-external. Hemorrhoids which protrude at stool, and are capable of being replaced and retained within the sphincter are of the internal variety, while the hemorrhoidal tumors situated outside of the sphincter which cannot be forced inside are of the external variety. The intero-external variety is a combination of the external and the internal. This variety occupies the verge of the anus, and is covered by both mucous membrane and skin.

The internal hemorrhoid is a varicose and dilated condition of the superior hemorrhoidal vein, therefore an affection of the portal system. The external hemorrhoid is a like condition of the middle and inferior hemorrhoidal veins, therefore an affection of the general venous system.

In the intero-external variety both sets of veins are involved.

External hemorrhoids are met with in any one of three different forms. The first is simply a venous tumor, the result of a phlebitis and consequent thrombosis of a varicose vein; the second, a tumor composed of dilated and varicose veins

with a proliferation of the surrounding connective tissue; the third, a tumor made up almost entirely of proliferated connective tissue.

Internal hemorrhoids are met with as one of two forms: the capillary and the venous. The capillary hemorrhoid is composed of the terminal branches of the arteries and veins and intervening capillaries. It is this form of hemorrhoid which bleeds upon the slightest irritation; its surface, too, is granular, and presents somewhat the appearance of a strawberry. The venous hemorrhoid is made up of anastomosing veins and connective tissue; this I regard as but an advanced stage of the capillary hemorrhoid.

The treatment of hemorrhoids is palliative and radical. Concerning the palliative treatment I will have but little to say other than that I regard having the bowels move daily, and observing the strictest cleanliness, the two most important indications to be fulfilled. Doubtless, in some instances, one or other of the various astringent ointments, so commonly used, may be of some advantage, yet I have little faith of their accomplishing a cure.

Before recommending radical treatment, the case is first to be thoroughly examined to determine whether such a procedure is justifiable.

Hemorrhoids may be symptomatic of visceral disease, of structural changes in the wall of the rectum above the pile-bearing area, such as carcinoma, stricture, etc. Under these circumstances the proper treatment would be the correction, if possible, of the condition giving rise to the hemorrhoids. Again, they are often secondary to disease of the uterus, the bladder—as when a calculus is present—an enlarged prostate or a stricture of the urethra, etc.

In advising radical treatment a careful examination should be made first to determine whether any of the previously mentioned conditions are present or not. The urine is to be carefully examined, when, if albumen is present and dependent upon heart or kidney affection of a serious character, operation is to be strongly advised against.

**THE RADICAL TREATMENT OF EXTERNAL HEMORRHOIDS**—In the first form,

that of the venous tumor, the result of a phlebitis, thrombosis, etc., it will suffice to incise the tumor freely, and turn out the clot, after which the wound is to be packed gently, and thus favor healing from the bottom. In the second variety, that of dilated and varicose veins with proliferation of the neighboring connective tissue, it will often suffice to stretch the sphincter muscles, when if this fails, I strongly recommend removal of the tumor with the clamp and cautery; in the third variety of external pile I also use the clamp and cautery. In either of the two latter varieties, when the tumor or tumors assume considerable size, it may not be possible to engage them individually in the clamp; under these circumstances they should be bisected, as it were, and each half clamped, the redundant portion cut away, and the pedicle cauterized. It is in this variety of pile, when involving the entire circumference of the anus, where the Whitehead operation is applicable, but so far as my observation goes it does not offer any advantages over the clamp and cautery. When the external pile presents itself in the shape of a tab of skin it will suffice to remove it with a pair of scissors; in the event of bleeding following, it can usually be checked by the application of a wad of styptic cotton, over which is placed a compress and bandage, or the bleeding-point may be touched with the point of the cautery. In the second and third forms of external pile, if inflamed, tense, and painful, I think it much more satisfactory to etherize the patient and remove them at once, and not attempt to reduce the inflammation by the application of lead-water, laudanum, poultices, etc. I have found this a much quicker way to dispose of them, and at the same time less painful to the patient.

**OPERATIONS FOR INTERNAL HEMORRHOIDS.**—In few departments of surgery have there been more operations devised for the cure of any one condition than that of internal hemorrhoids.

The following is a list of the most important which have been advocated:

Excision; removal with wire *ecraseur*; injection with carbolic acid or an astringent; the application of acids; removal by the galvanic cautery wire; dilatation of the sphincter muscles; clamp and cau-

tery; crushing; ligature and Whitehead's operation.

Of these, I have had experience with the clamp and cautery, ligature, injection of carbolic acid, Whitehead's and dilatation of the sphincter muscles. I now, however, rarely do any other than the clamp and cautery.

The advantage which the clamp and cautery possesses over all other procedures is its universal application. The instruments required to perform this operation are a Smith's clamp and a pair of pile forceps, a pair of scissors, and a Paquelin's cautery. A tenaculum or vulsellum may be used in place of pile forceps.

The first step in the operation is dilatation of the sphincter, which is followed by protrusion of the piles. The piles are now grasped with the forceps and the clamp adjusted. With the scissors the pile is trimmed down, leaving a pedicle one-quarter of an inch in length above the clamp. With the cautery iron at a dull-red heat the pedicle is reduced one-half, presenting a charred and dry surface. The clamp is now removed and the edges of the stump allowed to fold in. By leaving a pedicle as described, bleeding cannot follow the removal of the clamp. In cases where the pile-surface is muco-cutaneous, before the clamp is adjusted the skin should be divided with a pair of scissors, thus eliminating pain and subsequent contraction. The operation is completed by the introduction of an opium suppository, dusting the surface with iodoform, and the application of an antiseptic dressing. The after-treatment consists of rest in bed, light diet, and of the administration of one-quarter of a grain opium pill night and morning for from three to four days, when the bowels are moved by a laxative and an enema given when the desire to defecate is felt. After this the patient is allowed the freedom of the room.

The advantages of this operation are freedom from hemorrhage, the rapidity with which it is performed, the absence of pain in the majority of cases, the absence of retention of urine, and the patient's being able to resume his or her occupation ordinarily in from one week to ten days. Pain, irritability of the bladder, and prolonged convalescence occur in neurotic subjects. Further, I

believe tetanus is less likely to follow this than any of the other operative procedures.

The objections to the ligature are the pain which follows the tying of the pile, retention of urine, the amount of blood lost in debilitated subjects, and the prolonged convalescence consequent upon the process of separation of the ligatures.

The objections urged against the injection of hemorrhoids are the liability of sloughing and fistula, the formation of abscess, the possibility of a diffused inflammation with pyæmia, an extension of the inflammation to the peritoneum, and embolism. While injecting a pile the base should be constricted until coagulation takes place, to prevent an embolus from being carried into the circulation.

The objections to the Whitehead's operation are the time required for its performance, the amount of blood lost, and the danger of the stitches cutting out, leaving a circular granulating surface which may result in atresia of the rectum. Again, it is only applicable in a comparatively small number of cases.

Dilatation of the sphincter muscles, like the Whitehead operation, is only applicable in a few cases, especially those of recent origin, and in the case of prolapsed hemorrhoids which are prevented from repositing themselves on account of being grasped by the sphincters. In the former instance it may suffice to bring about a cure if proliferation has not taken place to any extent, which is always questionable. In the latter case it can only offer a palliative means. When internal hemorrhoids become strangulated and gangrenous, they should at once be removed, preferably with the clamp and cautery.

#### THE TREATMENT OF ISCHIO-RECTAL ABSCESS AND FISTULA-IN-ANO.

By HENRY R. WHARTON, M. D.

[Read before the Philadelphia County Medical Society, November 23, 1892.]

I HAVE been requested to say a few words this evening on the treatment of ischio-rectal abscess and fistula-in-ano to open the discussion upon these subjects by the members of this Society.

TREATMENT OF ISCHIO-RECTAL ABSCESS.—In this form of abscess the puru-

lent matter occupies the loose cellular tissue of the ischio-rectal fossa in close relation to the rectum, and from the anatomical peculiarities of the tissue in which it is situated it is apt to burrow widely and, if left to itself, to open into the rectum or through the skin into the region of the anus, and result in the production of one or other forms of fistula-in-ano, either the complete form or the external or internal incomplete form of this affection.

To obviate this unfortunate result the prompt treatment of ischio-rectal abscess is urgently demanded, and I am decidedly of the opinion that attempts at abortive treatment of this form of abscess are worse than useless, that by such treatment valuable time is lost, and the surgeon has finally to resort to surgical treatment after extensive burrowing of pus has occurred with possibly perforation of the wall of the rectum.

It is, and has been for a long time, a surgical axiom that an ischio-rectal abscess should be opened promptly, and if so treated the probability of a fistula-in-ano resulting is much diminished. I formerly was satisfied to open these abscesses by a small incision, evacuate the pus, and in many cases a prompt recovery took place without the formation of a fistula, but in others a fistula resulted, whether the rectal communication was present at the time of opening or resulted from the imperfect drainage secured by a small incision I am unable to say, but I am sure that the results I have obtained in these cases during the last few years since I have adopted Mr. Allingham's method of dealing with these abscesses have been much more satisfactory. By this method of treatment, even in cases where I have been able to demonstrate a rectal communication at the time of the operation, I have secured healing without the formation of a permanent fistula. Therefore, in any case of inflammation of the tissues of the ischio-rectal fossa, whether the evidence of abscess be clearly demonstrated or not, I follow the method which is recommended by Mr. Allingham, which consists in etherizing the patient and placing him in the lithotomy position, after having located the position of the indurated tissue or abscess; and a rectal examination by means of the

finger will often assist in locating the position of the abscess. A free incision, several inches in length, is made through the tissue, outside of and parallel with the fibres of the external sphincter muscle, and the incision is gradually deepened until the pus cavity is reached. It is then slit up to the length of the skin incision and the cavity is explored with the finger, breaking down any loculi which tend to divide up the abscess cavity, and so make one cavity of the abscess. The cavity of the abscess is next washed out with a 1:2000 bichloride of mercury or 1:60 carbolic acid solution and is then packed with strips of iodoform gauze, and a pad of the same gauze is placed over the wound, and over this a pad of bichloride of mercury cotton is laid, and the dressing is secured in position by a T-bandage. An opium suppository is introduced into the rectum and the bowels are kept quiet for three or four days.

The dressing is not removed for two or three days, and at this time the packing is usually loose and can be removed without difficulty, and after its removal the cavity is injected with peroxide of hydrogen, and it is then irrigated with a 1:2000 bichloride of mercury solution, and next the cavity is lightly packed with strips of iodoform gauze and the wound is covered with a pad of iodoform gauze and bichloride cotton. The same steps are observed at subsequent dressings, which are made at intervals of two or three days, and the cavity usually heals rapidly by granulation and contraction, and in a few weeks it is usually completely healed.

Mr. Allingham recommends that the cavity be packed with lint saturated with carbolized oil, and I have employed this material, but now prefer to use the iodoform gauze, as I stated above.

I will report briefly a case in which this treatment was adopted. In January of this year I saw, with Dr. Musser, a lady, forty years of age, who had suffered for a few days with inflammation of the tissues of the ischio-rectal fossa. On examination of the case I found the left buttock for a distance of six or eight inches from the very verge of the anus, indurated, hot, and painful; no soft spot of pointing could be detected. An examination of the rectum showed bulging of the walls of the



rectum in the left side, and upon withdrawing the finger a small amount of pus escaped from the anus. The patient also stated that some matter had been discharged from the rectum during the day. The patient was etherized and a curved incision four inches in length was made just outside of the line of the sphincter muscle. This was gradually deepened until the cavity of the abscess was opened and a free discharge of pus, many ounces, escaped. On introducing my finger I found that the cavity extended laterally for some distance and passed upward between the wall of the rectum and the sacrum. In fact, with my two fingers introduced to their full length in the wound I could not reach the upper portion of the abscess cavity. A careful examination failed to reveal the position of the opening into the rectum. The abscess cavity was thoroughly irrigated with a 1:2000 bichloride of mercury solution and was then packed with strips of iodoform gauze, and a pad of gauze and bichloride cotton was placed over the external wound and held in place by a T-bandage. The patient did well after the operation and the cavity was dressed in the same manner every second or third day for the first two weeks, and at less frequent intervals after this time for six weeks, at which time healing was complete.

There is no question in my mind that there existed a communication between the abscess cavity and the rectum before the operation, as was shown by the discharge of pus, and by the discharge from the wound, about a week after the operation, of a piece of bone a little larger than a grain of corn. This bone, Dr. Harrison Allen examined for me and pronounced it to be a portion of a transverse process of a sheep's vertebra. It had been swallowed with the food and had ulcerated through the wall of the rectum, and had set up inflammatory action in the peri-rectal cellular tissue, terminating in this extensive abscess.

The points in the treatment of ischio-rectal abscess I would especially call attention to, are: Early and free incision; thorough breaking down of any secondary abscess cavities into one cavity; irrigation of the cavity with peroxide of hydrogen and a 1:2000 bichloride of mercury solution or 1:60 carbolic acid solu-

tion; packing with iodoform gauze and subsequent dressings made in the same manner, care being taken not to pack the cavity too firmly. Following this form of treatment the results of this variety of abscess in my hands have been most satisfactory.

**TREATMENT OF FISTULA-IN-ANO.**—Ball classifies fistula-in-ano as a complete rectal fistula in which there is a sinus leading from the rectum to some point in the skin in the region of the anus; and the incomplete fistula he describes as internal rectal sinus, a sinus passing from the rectum into the peri-rectal cellular tissue; external rectal sinus, one having an opening on the skin, passing into the cellular tissue around the rectum, but not perforating the wall of the gut.

As regards the treatment of fistula-in-ano, the fact should not be lost sight of that it is possible to have a fistula-in-ano heal under simple treatment without operative interference. This is more apt to occur in recently formed fistula, but as the result of palliative treatment is always uncertain in these cases and a long course of local applications is required, this method of treatment is not generally adopted. Allingham says that he has had twenty-one successful cases under this method of treatment, and a number of cases in which he was unable to effect a cure after prolonged treatment. When this form of treatment is adopted it consists in trying to obliterate the fistulous track by rest, free drainage and the local use of stimulating applications such as carbolic acid, nitrate of silver, and sulphate of copper. Rest to the part is best secured by the wearing of a firm anal pad secured by a T-bandage.

At the present time the most widely adopted and successful treatment of complete fistula-in-ano is by incision. The patient is etherized and placed on his side or in the lithotomy position, a probe-pointed flexible director is then passed through the external opening of the fistula and conducted into the rectum; the finger is then passed through the anus until it comes in contact with the end of the director, which is bent and brought out of the anus; the tissues on the director are then divided with a scalpel or by means of scissors, care being taken to see that the division of the fibers of the sphincter

muscles is made at a right angle to the course of the muscular fibers; oblique divisions of the muscle do not heal well and are apt to be followed by a loss of power in the muscle. The main track of the fistula being slit up, it is next explored for the presence of branching sinuses, and if these are found they are slit on a director. In indurated sinuses it is often well to make an incision through the base of the sinus, which seems in many cases to facilitate the healing. If the cutaneous edge of the fistula or sinuses tend to overlay each other near the anus they should be trimmed off with the scissors. The surface of the exposed fistula or sinuses is next freshened with a curette, and after being washed out with a 1:2000 bichloride of mercury solution the cavities are packed with strips of iodoform gauze or lint saturated with carbolized oil. A compress of gauze is next applied over the wound, and over this is placed a pad of bichloride cotton, and the dressing is held in place by means of a T-bandage. The patient is given an opium suppository, and the bowels are kept quiet for three or four days.

The after-treatment of fistula-in-ano is most important, and many unfavorable results are due to carelessness in this particular. On removal of the primary dressing, at the end of two or three days, the sinus should be washed out with peroxide of hydrogen and a 1:2000 bichloride of mercury solution, and a strip of iodoform gauze should be lightly passed to the bottom of the wound and allowed to rest between its edges. The mistake is often made in packing these wounds forcibly, which interferes with healing. A piece of gauze and a pad of cotton is next applied over the wound and is held in place by a T-bandage. The patient should be kept on his back two or three weeks, and the wound should be dressed in the manner described daily or on alternate days, and at the end of three or four weeks healing is usually completed.

In cases of fistula-in-ano of the horse-shoe variety, one division only of the external sphincter muscle should be made, and the branching sinuses should be laid open by curved incisions passing parallel with and outside of the line of the muscle.

Sinuses extending to the perineum or buttock should be freely laid open.

The treatment of incomplete fistula of the external variety, or of external rectal sinus consists in passing a director into the sinus down to the rectum, and if on passing the finger into the rectum, it is found that the director is separated only from the finger by the mucous membrane, and its position is low down in the rectum, it is better to push the director into the bowel and bring it out at the anus and divide the tissues as in complete fistula, and treat the resulting wound as described after the operation for complete fistula. If, on the other hand, the rectum is merely exposed at the bottom of the sinus, it is well to lay the sinus freely open to this point, curette its surface and pack it lightly with iodoform gauze. Subsequent dressings should be carefully made and the sinus will usually heal, though the course of treatment usually extends over a longer period of time than in cases where the sphincter muscle has been divided.

In internal incomplete fistula or internal rectal sinus, when the rectal perforation is low down, a bent director should be passed into the anus, and its point should be passed through the rectal opening and made to project on the skin near the anus. This is cut down upon and exposed and the director is pressed through it, making the fistula a complete one, and the tissues on the director are divided. The subsequent steps of the operation and dressing are similar to those mentioned in the cases previously described.

When the rectal opening is high up and it is considered inadvisable to divide the sphincter muscle or the bowel to its full extent, a director should be passed through the internal opening and the surgeon should cut down on its point from an incision through the skin a little outside of the sphincter muscle. When it has been exposed the sinus or cavity should be curetted and irrigated and dressed with iodoform gauze, and by careful dressing the wound may be made to heal from the bottom, the rectal communication being shut off by granulation and subsequent contraction.

Among various methods of treating fistula-in-ano should be mentioned the elastic ligature and the treatment by excision.

The elastic ligature is principally used in those cases in which the fistula opens into the rectum at a high point, where division by the knife would be accompanied by free hemorrhage. When employed, a cord of india-rubber one-sixteenth of an inch in diameter is threaded to an eye-probe which is passed through the cutaneous opening into the rectum and brought out at the anus; before tying the ligature, the skin and mucous membrane to the edge of the anus should be divided so that the ligation can bury itself when tied, thereby saving the patient pain and at the same time facilitating the more rapid division of the tissues by the ligature. After the ligature has cut its way through the tissues it is often found necessary to dress the wound in the same manner as in cases where incision has been practised, to secure satisfactory healing.

The treatment of fistula-in-ano by excision has been recommended by some surgeons. The fistulous track being dissected out, the parts are brought together by deep sutures, and if primary union is obtained there is a great saving in the time of treatment. The form of fistula in which this method of treatment is best suited is the complete fistula which is not very deep and has a straight course; branching fistula, and those very deeply situated, I do not think are favorable cases for this procedure. If in using this method of treatment it is found that primary union has not occurred, as shown by the escape of a little pus from the line of the incision, the sutures should be removed and the edges of the wound should be separated, and it should be lightly packed and treated—in fact, as a case in which primary incision had been practiced.

As fistula-in-ano often occurs in patients suffering from phthisis, the question of the advisability of operating upon these cases often must be considered. The rule in these cases is to operate unless the patient's disease is in a very advanced state when no repair could be likely to take place. In the majority of phthisical cases the result of the operation is satisfactory.

The only serious complication following the operation for fistula-in-ano is incontinence of feces, and this is fortu-

nately a rare complication. It may be guarded against by care in dividing the sphincter muscle only at one point, and by seeing that the division of the muscle is not an oblique one. When incontinence exists, it may be relieved in many cases by excision of the cicatrix in the sphincter muscle and by suturing the freshened ends of the muscle together by catgut sutures, or by applying a point of Paquelin's cautery to the cicatrix or to several points of the mucous membrane and skin of the anal margin.

#### DISCUSSION.

DR. THOMAS S. K. MORTON: I am glad that Dr. Wharton has insisted upon early operation in ischio-rectal abscess. This affection involves loose cellular tissue richly supplied with lymphatics; and may give rise to profound septicæmia, if not pyæmia, if not relieved early. I have recently heard of a case of small ischio-rectal abscess which gave rise to pyæmia and death. The incision should be made as soon as the brawny induration is evident, feeling certain that if there is any inflammation in this region, where the tissues are so poorly supplied with bloodvessels and other means of destroying septic material, suppuration will follow.

In washing out these abscesses with a strong antiseptic solution it is important to see that all that goes in, comes out, and that none enters the bowel, for a few drachms of a strong mercurial solution entering the bowel would give rise to poisoning.

The packing should be applied loosely. Here, as well as elsewhere, much damage can be done by too tight packing. There is something about iodoform gauze that makes it superior to every other material for packing. What this is I do not know, but under its use the dressing is drier, there is less pus, and the whole case goes on in a more orderly and rapid manner. I like also to rub iodoform into the walls of these abscesses and into the sides of a fistula. Peroxide of hydrogen is one of the best antiseptics in these cases.

In regard to the bowels, I have a predilection for keeping them loose in all operations about the rectum, and very early give such drugs as will produce

partially liquid stools. This gets rid of the great pain and the terrible anxiety of the patient looking forward to the movement of bowels that have been constipated for several days after an operation.

Repacking is important, but in many cases simple inspection, particularly in fistula, is all that is necessary to see that healing is progressing properly in fistula, is all that is necessary to see that healing is progressing properly, and, if necessary, the wound can be painted with some stimulating solution, as a fifteen-grain solution of silver nitrate, balsam of Peru, etc. By careful watching, the painful process of repacking can often be avoided, although in some cases it will be required to secure uniform healing from the bottom.

Coming to fistula-in-ano, we should bear in mind that there are two great varieties: one is the tubercular, and the other the simple or traumatic, where a small foreign body perforates the wall of the rectum and sets up inflammation in the cellular tissue. Probably the ones that form slowly are simple, but may become infected with the tubercle bacillus. Granting that the large majority are tubercular, the treatment must be thorough and radical in order to get rid of the tubercle bacillus.

I agree with Dr. Wharton in regard to the use of the ligature, that only cases involving high section of the bowel justify that method. By this method we are apt to overlook the branches which are so common.

It is not always best to carry the director through the fistula and lay it open at once. It is sometimes better to dissect from the outer opening, treating the branches as they are met with, rather than to make the incision and have the field of operation obscured by blood.

The excision of the fistula has not proven a success. I have conversed with one or two men who had much to do with the introduction of this method, and they acknowledge that after using it for several years it has proved far less useful than had been hoped. There were but few cases in which excision could be done, and of these few the majority suppurated, and the edges of the wound had to be separated.

In fistulas that are tubercular, and perhaps in all, after thorough dissection and opening up all branches, I have wiped the wound out with pure caustic potash. That stops the hemorrhage, it kills the lining membrane throughout, and perhaps some healthy tissue, but I think that we get a more radical operation, particularly in tubercular cases. We must, however, be careful not to go too deep. After using the caustic potash it is well to carry over the wound a sponge saturated with vinegar, in order to stop the action of the alkali. The indurated tissue can also be destroyed with the Paquelin cautery, but when this is used the surrounding tissues must be very carefully protected from the radiating heat.

There are scarcely any fistulas that cannot be benefitted by operation. There are many that cannot be cured, but all that I have seen have been benefitted. I can recall several cases that are going about with a small sinus running high up, but yet are remarkably comfortable contrasted with their former deplorable condition.

DR. A. J. DOWNES: Neither of the gentlemen has referred to multiple fistulas. I have recently had such a case in a tubercular woman forty-two years old. During the past ten years she had had four ischio-rectal abscesses that had opened, and numerous other plegmons that had not opened. I operated on her four weeks ago at St. Joseph's Hospital. I found four fistulas. On the left, two, one close to the external sphincter and entering the bowel behind the internal sphincter; the second an inch and a quarter from the margin of the bowel and entering the bowel an inch and a half from the anal margin. On the right side there were two, whose external orifices were two inches apart, and an inch and a half from the margin of the bowel. In operating I cut through the left side at right angles to the sphincter, and on the other side made a wedge-shaped incision, extending above the openings in bowel, including both fistulas. I expected to cut the sphincter on this side at a subsequent operation. Sixteen days later I etherized and found that I had succeeded in closing the internal openings on the right side. I had thus succeeded in one



operation in curing the four fistulas with but one incision through the sphincter, nor can I see why it should be necessary to even cut the sphincter twice in any case.

On two occasions in the office I have used the rubber ligature for fistula in otherwise healthy people, with excellent results.

DR. J. M. BALDY: I have been somewhat surprised at the small amount of space that Dr. Wharton has given to excision of fistulas and to the utter condemnation of that treatment by Dr. Morton. My experience has been so contrary to this that it may be of interest to mention it. In past times I have treated fistulas by cutting and packing, and I have seen a number of cases in which non-control of the sphincter continued for a long time. I then gave excision a trial, and I have never in a single instance regretted its use, nor have I had a single failure in the ten to fifteen cases in which I have employed it in the last two years. In simple fistulas I have slit open the fistula, and with curette, scissors, or thin-bladed knife removed the indurated tissue, and then have placed sutures buried completely around the fistula; and have finally closed the mucous membrane, from the bowel, with catgut sutures. Where there have been multiple sinuses I have cut out all partitions between the sinuses. In one case the opening was one-half to three-quarters of an inch in width. I rubbed in a strong antiseptic solution, obtained primary union, and a perfect result. I remember a case in Trenton on whom a perineal operation had been done by a friend. This was followed by an ischio-rectal abscess with an opening into the rectum. The lady was also suffering from hemorrhoids. I laid the fistula open, exposing a cavity that looked most formidable. The slit in the bowel was probably two inches long. I curetted the cavity, rubbed in a strong bichloride solution, taking one-half to three-quarters of an hour, closed the wound with sutures, which did not go within half an inch of the bottom, whipped the bowel together with catgut, and closed it without drainage, at the same time removing four hemorrhoids. Ten days later I removed the sutures, and in another ten days the

patient was up and about, and the opening closed.

As I have said, in none of the cases operated on have I had cause to regret excision, and I should prefer it to all other methods where it was possible to introduce sutures, and nearly, if not fully, bury them all the way round.

In all my bowel operations I keep the bowels open from the first, and after the first passage the patients do not have much trouble. They are more comfortable than if they are permitted to have semi-hard discharges passing over tender surfaces.

DR. WHARTON: I am glad that Dr. Morton has called attention to the importance of using the bichloride solution so that none of it is retained in the rectum. I cannot say why it is that iodoform gauze is so exceptionally good a dressing in these cases, but it is certain that it does better than any other material. I also use the powdered iodoform.

Practically the second dressing is not a repacking. I simply pass a piece of gauze to the bottom of the wound and allow it to project between the edges. I have also used the method referred to by Dr. Morton without repacking.

I use the caustic potash in many cases, particularly where the walls of the sinus are very dense, but neglected to mention it in the paper.

In the chronic cases that have been operated on many times, I think that the great secret of treatment is thorough curetting and free drainage. If the sinus can close so that pus can accumulate, the patient suffers. If the drainage is free the patient is more comfortable.

In regard to double fistula, I spoke of this under the head of horseshoe fistula, and recommended one division of the sphincter at a time.

Dr. Baldy's results have been very satisfactory. I have myself not had a very extensive experience with excision. I meet with many cases in which the operation could not be satisfactorily accomplished, and in these I prefer incision.

If the bowels are moved promptly after the operation it is apt to disarrange the packing, and sometimes the first packing is important in controlling hemorrhage from the wound.

# The Times and Register.

A Weekly Journal for Medicine and Surgery.

WILLIAM F. WAUGH, A. M., M. D.,  
MANAGING EDITOR.

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## DIPHThERIA AND PSEUDO-DIPHThERIA.

IN the Bulletin of the Johns Hopkins Hospital, W. D. Booker discusses the relation of pseudo-diphtheric angina to diphtheria. The difficulty of diagnosing the scarlatinal pseudo-membranous angina from diphtheria is very great. Indeed, many physicians look upon this as a true diphtheria engrafted upon the scarlatinal angina. The discovery of the specific cause of diphtheria has, however, afforded a certain means of differentiating the two maladies.

Clinically, the cases are sometimes indistinguishable. In scarlatinal angina the exudate is yellow, non-cohesive, tends to ulceration, and is accompanied by marked adenitis, and dysphagia. The tissues are penetrated deeply, and the ear is often affected; the larynx less frequently, the trachea and large bronchi still less, but capillary bronchitis and

pneumonia are not so rare. The inflammation is of an active type.

In diphtheria the membrane is white and tough, there is rarely suppuration, little pain or swelling, no ulceration. The affection extends by the surface; often to the air-passages. There is less active fever, that soon subsides.

The anatomical diversity is more distinct. The scarlatinal deposit penetrates deeply, the tonsil is purulent, and micrococci are found. Later, ulceration is prominent, and much tissue is lost. The destruction is not limited to the throat, but may affect the lymphatic glands, or the deeper cervical tissues even as far as the clavicle. The spleen, peritoneum, mesenteric glands, kidneys, and pulmonary apparatus may be affected with necrosis, suppuration or infarction; while remote organs are invaded by micrococci.

Diphtheria seldom has gangrene or deep ulcers. The glands are firmer, with hemorrhagic color and whitish foci. The air-passages are as a rule involved, in fatal cases. The membrane extends farther, and is more consistent and adherent on the fauces than in the larynx. The death of the epithelium causes coagulation necrosis. The necrotic epithelium becomes hyaline, and assumes the form of a fibrinous network. Inflammatory products, leucocytes, red cells, serum and fibrin are constituents of the false membrane. The subjacent basement membrane undergoes similar changes, becoming a hyaline network. The vessel walls participate in this change, but still convey blood. Hence, hemorrhage follows the separation of the membrane, or, if necrosis accompanies it, ulceration may follow. The bacilli are in and under the superficial layer of false membrane. The outer layer contains a variety of organisms, mostly saprophytes. Under this is the bacillus-tenanted locality, rich in cells. As the pseudo-membrane passes in towards the basement, fewer cells and

bacilli are found. The wide fibrinous layer next, lying on the basement membrane, has few or no bacilli.

The bacilli do not invade the body, but their toxic products are absorbed, and various lesions result. Oertel describes the cellular changes in the neighboring glands, and in remoter tissues, that contain no bacilli and do not suppurate. These lesions have been produced experimentally. The diphtheric toxine causes them when injected, but does not produce false membrane.

The decisive diagnostic test is the presence or absence of the Klebs-Loeffler bacillus; the specific cause of diphtheria. But as a non-pathogenic bacillus exists, that cannot be distinguished morphologically from the diphtheric bacillus, the latter must be identified by inoculation tests. The absence of both is positive proof that the affection is not diphtheria. But cases occur in which the picture of true diphtheria is presented, but the bacilli are absent. Wurtz and Burges found this the case in nine cases of early scarlatinal angina; while in two cases of late angina, occurring on the seventh and sixteenth day, the Klebs-Loeffler bacillus was detected. Others have made similar observations. Baginsky found that children brought into the hospital with diphtheria contracted scarlatina; when the appearance of the throat affection changed, and the Loeffler bacillus disappeared, being replaced by the cocci. To these Booker adds sixteen cases of scarlatina, in eleven of which there was pseudo-membranous angina; three of measles, and three of follicular tonsilitis. The Loeffler bacillus was not found in any of the cases, even when the angina appeared later than the exanthem and continued a long time, (The city was then comparatively free from diphtheria). Streptococci were found in all the cases; forming two groups. One type was larger, and the cocci varied in size. This reddened litmus and co-

agulated milk, then restored the litmus to a pink, instead of blue. The second was smaller and more uniform, faded blue litmus, but did not completely reduce it, and then changed it to a slight pink tint. Milk was not affected.

This leaves the question in this form: that the angina of scarlatina is less likely to be diphtheric as it occurs earlier; and that as the graver forms occur on or after the seventh day of the disease, they may or may not be due to an access of true diphtheria; to which both scarlatina and measles predispose the patient. The value of the clinical characteristics would, therefore, be great, were there any such uniformity in them as Dr. Booker implies. But in truth, so great is the liability to diphtheritic infection of such "pseudo-diphtheric" cases, that no patient with the latter can be considered secure from diphtheria for twenty-four hours after the most thorough examination, if diphtheria prevail in the vicinity.

## Annotations.

THE *Bulletin Generale de Therapeutique*, November, in a report by Sgasse on organic liquid injections (euphemism for testicle extract), claims remarkable results from their use in cachexia, cancer, cholera, incontinence of urine, leprosy, pulmonary tuberculosis, muscular rheumatism, etc. Brown-Sequard calls attention to dangers, mainly septic, arising in the course of such treatment and states that even death may result from too great or careless usage. He does not allude to the danger of the old fashioned method of administration causing life, at times, which was unexpected and undesired.

There is a germ of truth in many of the senile enthusiast's findings, and the explanation of some of his genuine successes may lie in there being an assimilable protagonous compound in animal tissues available where the nervous system is at fault. It may be found in larger quantities in parts of the body other than

those used by Seqnard, as well as in certain plants.

The sixth annual meeting of the National Association of Railway Surgeons will be held at Omaha in May, 1893. The general subject to be discussed is "Injuries of the Cord and its Envelopes without Fracture of the Spine." This is divided into thirteen sub-headings; and as among those set down as participating in the discussion are such men as Senn, Hughes, Outten, Watson, etc., the meeting will be of unusual interest.

But it is a pity that this very important subject is to be considered *only* by one side; by those whose sympathies must necessarily be on the side of the railways, as their services as experts are due to that side. Allowing them the utmost degree of impartiality obtainable by man, it would still be better to have the other side represented.

The mind of man is so constituted that facts are viewed by it through a medium favorable to the side with which one is interested. Witness the great eight-to-seven Electoral Commission, composed of judges whose integrity was unquestionable. Witness also the treatment Frank Billings received from the commission appointed by the government. All the members of this Association are serving the railroads; these gentlemen are paid employees of the defendant in the suit. How can they be impartial? If a really unbiased verdict is to be delivered, let the discussion be equally participated in by Clevenger and Moyer, Mills and Spitzka, by men who have no railway connections, and whose sympathies are against the railroads. Otherwise, we will have an *ex parte* statement of the case, all the more dangerous from the high character of the witnesses.

The *Revue Scientifique* states that the Australians, who formerly rejected the proposition of Pasteur to rid them of the rabbit plague by inoculating the animals with chicken cholera, are now driven to such necessity by the increase in the numbers of these animals that they have petitioned the Government to have the efficacy of Pasteur's suggestion tried on a large scale.

## Letters to the Editor.

### CONVENIENT REMEDIES FROM FIELD, GARDEN AND KITCHEN.

"O thou sculptor, *doctor*, poet!  
Take this lesson to thy heart;  
That is best which lieth nearest,  
Shape from that thy work of art."

The practical physician need seldom go far from his own or his patient's door to secure the aid of effective allies. In the neighboring fields, meadows and woods useful agents can always be gathered, and may be handily prepared, as infusions and decoctions. Others are easily obtainable from the adjacent garden. And a host of articles that come from the kitchen, may fill a gap and perhaps save a life.

Within more or less easy reach, grow many plants possessing tonic, astringent, purgative, sudorific, diuretic and other properties. Blood root, black root, burdock, butternut, boneset, blue flag, buckbean, blackberry, bearberry, celandine, couch grass, chestnut, cranesbill, Indian turnip, Indian cucumber, Indian tobacco, prickly ash, poison oak, poke root, pleurisy root, snake root, stone root, sumach, sassafras, smartweed, senna, shepherd's purse, slippery elm, sweet flag, shield fern, witch hazel, wild indigo, white oak, wormseed, willow and dogwood, dandelion, flea bane, goose grass, golden rod, golden seal, hemp, hellebore, Jamestown weed, larkspur, May flower, umbrella tree, yellow jessamine and yellow dock. Some of these are hard to find, except in certain localities, but many are almost ubiquitous and may be had for the seeking.

*Blood Root* (*Sanguinaria Canadensis*) inhabits fertile woods, and flowers in early spring. The root is employed in chronic bronchitis, atonic dyspepsia and duodenal catarrh. Large doses are unsafe.

*Black Root* (*Leptandra Virginica*) or Culver's root, grows wild in the woods, and is also cultivated. It blooms in July. The rhizome and rootlets are tonic, purgative, and cholagogue, and are used in dyspepsia and stomach affections.



*Burdock* (*Arctium Lappa*) flourishes in waste places near dwellings. The root and seeds are employed in dyspepsia and psoriasis, and also have diuretic and emmenagogue properties.

*Butternut* (*Juglans Cineria*) grows in the woods, and flowers from May to September. The nut is rough and deeply scored. The bark of the root is cathartic and cholagogue, and is serviceable in constipation and dysentery.

*Boneset* (*Eupatorium Perfoliatum*) or thoroughwort, is common in low grounds. The leaves and tops are tonic, diaphoretic and cholagogue; popularly used for sluggish liver, and often employed in remittent and typhoid fevers.

*Blue Flag* (*Iris Versicolor*) is a beautiful wild flower, blooming in boggy places in May. The rhizome and rootlets are cathartic, emetic, and cholagogue and aid in digestion.

*Buckbean* (*Meneanthes Trifoliata*) luxuriates in swampy places, flowering in May. The leaves act as a laxative tonic.

*Blackberry* (*Rubus Villosus*) abounds in thicket borders from May till September. The root is tonic and astringent and is a household remedy for diarrhoea.

*Bearberry* (*Arctostaphylos Uva Ursi*) is a shrub inhabiting sandy soils and bare hills, flowering in early spring. The leaves are tonic, astringent, and demulcent, and useful in cystitis, gleet, incontinence of urine and leucorrhoea.

*Celandine* (*Chelidonium Majus*) favors out-of-the-way places, flowering from May to August. The whole plant is employed in chronic rheumatism.

*Couch Grass* (*Triticum Repens*) flourishes in meadows, from June to August. The root is demulcent and diuretic, soothing inflamed mucous membranes, and relieves urethritis and cystitis.

*Chestnut* (*Castanea Vesca*) flowers in the woods, from June to July. The leaves are expectorant in catarrhal chest affections and whooping cough. They are a reputed specific for ivy poisoning.

*Cranesbill* (*Geranium Maculatum*) is found in fields and woods, flowering from April to July. It is hæmostatic, and a general astringent and is highly endorsed.

*Indian Turnip* (*Arum Tryphillum*), or dragon root, is common in thick woods,

blooming in May. The dried root is used in asthma, whooping cough, and rheumatism.

*Indian Cucumber* (*Medeola Virginica*) is a common herb used in general dropsies.

*Indian Tobacco* (*Lobelia Inflata*) flourishes in dry places, flowering from July to September. The root and other parts are employed in asthma, bronchitis, and whooping cough. It is incompatible with alcohol, ammonia, belladonna, digitalis, ergot and strychnine.

*Prickly Ash* (*Zanthoxylum Carolinianum*) is a small tree, found on the coast, and blooming in June. The bark is used in chronic rheumatism, and as a sialagogue and emmenagogue. It is insoluble in water, but dissolves easily in alcohol.

*Poison Oak* (*Rhus Toxicodendron*) or poison ivy, climbs over rocks, and ascends thicket trees. The leaves are used internally in rheumatism, and locally in erysipelas and eczema.

*Poke Root* (*Phytolacca Decandra*), or pigeon berry, is found in moist places, woods, flowering in the fall. It has an unpleasant odor, and an uncommonly large root. The stalks are sometimes eaten for asparagus. The root is emetic, purgative, and narcotic. It is employed in chronic rheumatism and diphtheria. It is not compatible with alcohol, ether, digitalis, opium and strychnine.

*Pleurisy Root* (*Asclepias Tuberosa*) is common on dry hills, and elsewhere, flowering in June and July. The root is expectorant and diaphoretic, and is useful in many chest affections.

*Snake Root* occurs in several species. *Senega* is found in rocky places, flowering from May to June. The root is employed in bronchitis, asthma, and whooping cough. *Cohosh*, or black snake root (*Cimicifuga Racemosa*), occupies rich woodlands, blooming in July. The rhizome and rootlets are valuable as tonics and nerve stimulants, in chorea, rheumatism, cramps, menorrhagia, amenorrhoea, and ovarian irritation. It is incompatible with stimulants. *Serpentary*, or Virginia snake root, is an aromatic, fibrous root, having tonic, stimulant, and diaphoretic properties. It is used in rheumatism and typhoid fever, and as a gargle in malignant sore throat.

*Stone Root* (*Collinsonia Canadensis*) is

found in damp places blooming from July to September. The herb smells like lemons. It is diuretic and mildly stimulant, and is popularly used as a solvent in vesical calculus.

*Sumach* (*Rhus Aromatica*) is a low straggling bush, found in rocky, dry places, and blooming in April. This is a good astringent, used in diabetes, diarrhoea, cystitis, polyuria, and hemorrhages generally.

*Sassafras* has gummy twigs and a scented bark, and is at home in dense woods, flowering in April. The bark and pith are employed in rheumatism, and as a diuretic.

*Smartweed* (*Polygonum*) is a crimson herb, in wet places. It is rich in tannin and gallic acid, and is astringent, diaphoretic, and emmenagogue.

*Senna* (*Cassia Marilandria*) grows commonly in alluvial soil near ponds and rivers, flowering in July and August. It is a well known cathartic.

*Shepherd's Purse* (*Bursa Pastoris*) is a common weed in waste places, flourishing from April to September. It is much used in hemorrhages from the kidneys, bladder, and uterus.

*Slippery Elm* (*Ulmus Fulva*) grows everywhere, on high grounds, flowering in April. The inside bark is demulcent and emollient, and is prized in diarrhoea and dysentery. It is also used to mechanically dilate the os uteri, and strictures generally.

*Sweet Flag* (*Calamus Acorus*) flourishes in most swampy places, from May to June. The root is an aromatic tonic, useful in flatulence and indigestion.

*Shield Fern* (*Aspidium Marginale*) grows on rocky hills and is used as a good substitute for male fern.

*Witch Hazel* (*Hamamelis Virginica*) is found in damp woods, and blossoms in the fall. The bark is employed in uterine, gastric, rectal, nasal, pulmonary and renal hemorrhages, hay fever, etc., and is widely used as a healing lotion to bruises, wounds, and ulcers. It is antagonistic to alcohol, ammonia, belladonna, digitalis, and chloroform.

*Wild Indigo* (*Baptisia Tinctoria*) occurs in sandy woods and uplands, flowering from June to August. The bark of the root is used in fever, externally to old ulcers, and as a gargle for sore throat.

*White Oak* (*Quercus Alba*) provides an astringent decoction, useful in spongy gums, leucorrhoea, prolapsus, etc.

*Wormseed* (*Chenopodium Anthelminthicum*) is found on fences and in waste places, in the fall. The fruit is effectual against round worms.

*Willow* (*Salix Nigra*) flourishes in summer. The bark contains salicin, and is famous in neuralgias, malarial fevers, and rheumatism.

*Dogwood* (*Cornus Florida*) grows commonly, flowering in May and June. The bark is tonic, digestive and astringent, and is valuable in convalescence from exhaustive diseases.

*Dandelion* (*Taraxacum*) is found everywhere, flowering from May to September. The root is a well-known diuretic, and is a good cholagogue in engorgement and congestion of the liver.

*Flcbane* (*Erigeron Philadelphicus*) flowers in summer in fields and woodlands. It is tonic, astringent, and diuretic, and is useful in hemorrhages and dropsies.

*Goose Grass* (*Galium Aparine*) is an annual herb, flowering in woods and covers after May. It is diuretic and refrigerant, and employed sometimes in cutaneous and urinary diseases.

*Golden Rod* (*Solidago Odora*) grows in old fields and pastures, flowering in September. The leaves and tops are stimulant and diaphoretic, and much used in colic and amenorrhoea.

*Golden Seal* (*Hydrastis Canadensis*) is found in the woods. The root is commonly used in inflammation of mucous membranes, in chronic ulcers, internally and externally; also as a cholagogue in sluggish liver and atonic dyspepsia and in duodenal catarrh. It is recommended also in uterine fibroids and gleet, etc. It lowers the blood pressure.

*Hemp* (*Cannabis Americana*) is found in waste grounds. The flowering tops have a narcotic odor, and taken internally, they cause a sort of intoxication (like Indian Hemp), and tend to relieve pain.

*Hellebore* (*Veratrum Viride*) occupies swampy places, flowering in June and July, but grows all through the winter. The rootlets and rhizome are used in rheumatism, neuralgias, palpitation, etc., and to reduce temperature in asthenic pneumonia, typhoid intermittent fever,

and many inflammatory affections. It should be avoided when the heart is weak or diseased.

*Jamestown Weed* (*Stramonium Daturæ*) blooms in waste places, from July to September. The leaves are smoked for asthma; and the seeds are said to be antidotal to mushroom poisoning. It is sometimes made into an ointment for the relief of pain.

*Larkspur* (*Delphinium Consolidæ*) occurs in fields and on roadsides, flowering from April to June. The root is used in scrofulous diseases, and externally for strumous ulcers.

*Mayflower* (*Epigœa Repens*) is found on pine hills and in sandy woods, flowering early in spring. The leaves are an excellent substitute for *uva ursi*, producing similar effects.

*Tansy* (*Tanacetum Vulgare*) is abundant everywhere, from July to September. The leaves are anthelmintic and tonic.

*Umbrella Tree* (*Magnolia Umbrella*) affects shady soils, and flowers in May and June. The bark is used as a tonic and antiperiodic, in rheumatism, dyspepsia, and fevers.

*Yellow Jessamine* (*Gelsemium Semper-virens*) grows in moist places near the coast, and presents a scented yellow flower, about March. The root is valuable in face-ache, odontalgia, neuralgia, Menière's disease, dysmenorrhœa, passage of gall stones, and, sometimes, in tetanus. Taken internally, it contracts the pupil; externally applied, it dilates it.

*Yellow Dock* (*Rumex Crispus*) grows in both waste and cultivated grounds. The root is mildly tonic and astringent, and is sometimes used in scrofula and skin diseases.

In the garden, we get cayenne pepper, parsley, sage, and wormwood.

*Cayenne* (*Capsicum Annuum*) is useful internally as a stimulant, and of much benefit in delirium tremens, given in beef-tea. Externally, it is a good counter-irritant, one part to four of flour. It is said to be antidotal to poisoning by shell-fish.

*Parsley* (*Apium Petroselinum*). The root is diuretic and purgative, internally; and a sprig will provoke an evacuation, if inserted within the sphincter.

*Sage* (*Salvia Officinalis*) is astringent and tonic. It grows all the year round.

The leaves make an excellent gargle for ordinary sore-throat.

*Wormwood* (*Artemisia Absinthium*) grows on the roadsides and in gardens all the year round, and flowers in July and August. The leaves and flowers are anthelmintic, internally; and used externally, with vinegar, as a popular application to wounds and bruises.

The kitchen supplies us with borax, eggs, flour, flaxseed, lemons, mustard, salt, soda, turpentine, vinegar, and—very likely—cobwebs. *Borax*, in warm water, relieves stomatitis, pruritus, and itching in general; a small piece, allowed to dissolve in the mouth, removes hoarseness; and it is occasionally used in amenorrhœa and epilepsy. *Coffee* is useful in opium and belladonna poisoning, either by the mouth, or as an enema. Strong coffee sometimes blunts the faculty of hearing. *Eggs* are of value in poisoning by oxalic and other mineral acids, sulphate of copper, corrosive sublimate, white precipitate, chloride of zinc, tartar emetic, nitrate of silver, and in mechanical choking. The white part only should be used. *Flour* is an effectual application to burns, scalds, and erysipelas; and—mixed with water—is antidotal to poisoning by iodine. *Flaxseed* has unlimited uses as a poultice, a demulcent tea, etc.; a pound of seed in a warm bath, relieves the irritation of eczema. *Lemons* are refrigerant and anti-scorbutic, and useful in rheumatism, ague, and malaria. The juice of a lemon in a small glassful of hot water helps a "bilious" attack. *Mustard* is a stomachic stimulant, and all-round emetic, and is valuable in persistent hiccup. As a counter-irritant, plaster or poultice, it is a household word, and, moreover, is an ever-ready and energetic diuretic, when applied over the loins. *Salt* makes a quick emetic, in water; and, as an enema, is rapidly purgative, and destroys ascarides. Mixed with ground ice, it is a local anæsthetic, and useful in ordinary rupture. A spoonful, taken dry, may arrest pulmonary and gastric hemorrhage. Moistened with vinegar, it evolves chlorine, and provides a good household antiseptic and disinfectant. Hot salt baths are useful in rickets. *Soda*, in solution, alleviates itching, scalds and burns. Sometimes a half-teaspoonful,

taken every hour or two, in water, counteracts suppression of urine. *Turpentine* is of value in diphtheria, and in many skin diseases. It is also anthelmintic and hæmostatic, and has numerous uses. Topically, it is an active and reliable counter-irritant. *Vinegar* is useful in diarrhoea and dysentery, and in the stomach-aches and griping of children; also in bleeding from the lungs and stomach, and locally in uterine hemorrhage. It relieves obstinate hiccup, drunkenness, and sick headache; and is indicated in poisoning by caustic potash, soda, or lime. A cup of hot vinegar, into which a cent (red-hot) has been immersed, makes a capital paint for the cure of ring-worm. *Cobwebs* arrest bleeding from slight wounds and leech-bites. Rolled up into pills, and taken internally, they are asserted to be antiperiodic in intermittent fevers. *Whitewash* or *plaster* from the wall may be hurriedly utilized in poisoning by mineral acids. Stray articles in or about the dwelling may serve the physician in an emergency. In the absence of a catheter, a *piece of wire*, doubled up, and suitably curved, may relieve retention of urine, by expanding the canal. A *piece of a clay pipe* serves for a female catheter, and has been substituted for a tracheotomy tube. A piece of string, tied firmly around the limb, above, will arrest cramp. A strip of band-box makes a temporary splint. A piece of a *mustard leaf*, folded into a cone, and inserted in the nostril, provokes bleeding, and relieves cerebral congestion. An inverted wine-glass provides a good-sounding stethoscope.

LOUIS LEWIS, M. D.

#### IMPOTENCE FOLLOWING TYPHOID FEVER.

YOUR opinion as to the diagnosis and treatment of the following case would place me under many obligations, the patient being a young man of excellent family, and of great worth himself, mentally and morally. X. X., native American; age, 29 years; height, 6 feet; weight, 180 pounds; dark hair and eyes; apparently strong and healthy. Had measles in childhood, also malaria; no sickness since until in the spring of 1890, when he noticed a gradual loss of the power of erection, with a gradual loss

of sexual desire, until by the 1st of September, 1890, a total loss of both desire and erection had taken place. He has a frequent desire to urinate, with sometimes difficulty in passing the urine, and sometimes an inability to retain it; before and during the micturition pain of a burning character at the neck of the bladder, and pain in right forefinger while passing urine. The amount of urine is in excess of normal. He has thirst, drinking large quantities of water; the bowels are regular, and sleep normal; appetite good. Under the eyelids he is œdematous in the morning. He is not losing weight. He uses tobacco and whiskey moderately, also coffee. In November, 1890, he had, so he states, a severe attack of typhoid fever, followed by phlebitis; both limbs were swollen badly, and are yet swollen somewhat, with enlarged superficial abdominal veins. In January, 1892, he had an attack of pneumonia on the right side. I have examined his urine repeatedly for sugar and albumen, always with a negative result. I have also sounded him for stone, with negative result. He denies any venereal history, or history of masturbation, or excess of venery. If these symptoms had followed the attack of typhoid with phlebitis, I should have believed that the blood supply had been shut off; failure to find sugar, albumen or stone, puts me in a quandary; the nerve supply is also in good condition, as is evidenced by the patient's statement, that, by masturbating the flaccid penis, the ejaculation of semen takes place with pleasurable sensations. The penis and testicles are of normal size and there is no diseased condition apparent, except an occasional eruption of herpes on the glans penis, which yields readily to a few sponges, with 1 to 2.000 bichloride solution. Being unable to find the cause, I have had him on a general tonic treatment, together with the aphrodisiacs, but without result. I might mention, as remedies that have failed, strychnine, iron, phosphorus, saw palmetto, salix nigra, faradic current, cold sounds, etc., etc. Although I have utterly failed to find a stone, that peculiar pain in the right forefinger is very suggestive.

R. H. G. RHEA, JR., M. D.

[There has been wide-spread phlebitis following the typhoid, and this has affected the blood



supply of the penis, and probably the portal system. Give the patient syrup of hydriodic acid, apply mercurial ointment locally, and if he has not improved in six weeks, send him to the city for a course of massage, electricity and hydro-pathy.—ED. T. & R.]

### HOW TO CURE GLEET.

I WRITE you, hoping I can get some assistance in treating a case of chronic urethritis. Having much of that practice, and finding such cases refractory to almost any treatment; it is growing very discouraging both to myself and to my patrons.

I find that seven-eighths of all the cases that present for treatment have excessive hyperesthesia, and in one half of such cases there are strictures.

I have tried the remedies you suggested some months since: Salol internally, with zinc and morphine as injection, but I find but little satisfaction from their use. I use on all cases the metal sound, of a size to suit the canal. This gives better results than any other remedy. I have blistered the canal externally with cantharidal collodion, from the anus to the scrotum, and from the scrotum to the meatus, and repeated them. They do some good, but few are willing to try this remedy, as it is very painful. I have used cocaine, morphine and atropine, in suitable quantities as an injection, and I find that the old Lafayette mixture does as well, with this injection, as any remedy I have tried, but it don't seem to produce a radical and lasting cure. When they seem well, one or two acts of coitus will bring back the discharge, and light up all the original conditions; and these conditions produce a multitude of abnormal symptoms and lead to hypochondria.

I have tried electricity, but with little benefit. Of course I do not expect to treat all such cases alike. We must be guided by present conditions and by the idiosyncrasies of constitution. Yet with a varied treatment I am not satisfied with results, and write you for an expression of what you would do, or what you consider best to do.

Such cases give rise to many nervous phenomena; such as a feeling of being lost, looking on the dark side of life, much confusion of ideas, pain or an indescrib-

able feeling at the base of the brain, insomnia, etc. Many sleep and eat well, yet complain of head troubles, in a word, they embrace the catalogue of neurasthenia symptoms.

But this excessive tenderness of the canal is one of the worst features of such cases. If I can cure that, then such cases would not be unpleasant while being treated. I shall be pleased to hear from you on this subject.

R. L. ALLEN.

PEORIA, ILL.

[This is one of many letters received on the same subject. No class of cases gives the physician more trouble than these uncured gonorrhœas. We are collecting material now for a special number exclusively devoted to gleet and invite contributions to it from all who are interested in Dr. Allen's questions.—ED. T. & R.]

### A POSSIBLE ELECTRICAL TREATMENT FOR CHOLERA.

Some means of acidulating the ilium contents would undoubtedly stop the ravages of cholera; upon this point bacteriologists are agreed, but how to do it is the question. Laparotomy is a severe undertaking, and flushing the colon with acidulated fluids would not insure the entrance of the fluid beyond the ileo-cæcal valve, which would resist its passage. Probably elevating the hips and filling the colon with acid oil, (taunic, acetic), etc., might admit of the small intestines being reached in time.

An electrical expedient occurred to me as theoretically warranted: The serum of blisters caused by the application of the positive galvanic pole is acid in reaction, the negative electrode causing alkalinity. I would suggest, therefore, experiments with animals to determine if sufficient current strength cannot be passed abdominally from a positive electrode to acidulate the intestinal contents for the time being. Either a large diffused electrode similar to the one used by gynæcologists may suffice or the small testing electrode used in electro-diagnosis which concentrates the current.

Let the physiological laboratories investigate and report.

S. V. CLEVENGER.

70 STATE ST., CHICAGO, DEC. 7, 1892.

## Society Notes.

### THE CLINICAL SOCIETY OF MARYLAND.

DR. S. A. Keene read a paper on  
PERSONAL EXPERIENCE IN THE CHOLERA  
EPIDEMIC OF 1866.

Dr. Keene said in part : About the latter part of September, 1866, cholera broke out among some oyster men, while dredging in the lower waters of the Chesapeake Bay. The origin was assigned to a vessel hailing from Philadelphia, where the disease had been raging for two or three months. I saw my first patient one midnight. He had been vomiting and purging not more than an hour or two. I believed it to be an ordinary attack of cholera morbus; as there was not then the slightest suspicion of cholera nearer than Philadelphia. I prescribed opium and bismuth, to be followed by a purgative, and probably mustard poultices to the abdomen. Next morning, while on my way to see this patient, a messenger met me with a call in another direction. I followed the messenger, and I reached the patient, a messenger met me with a call in another direction. I followed the messenger, and, when I reached the patient, I found him affected similarly to the one I had seen the night before; and from him I learned, for the first time, that there was a disease prevailing among the oyster men dredging at James' Island, from which they were "dying like sheep;" and that he and Slocum, my first patient, becoming alarmed, had left their boats the evening before to come home, about thirty-five miles distance. On the way, Slocum had complained of feeling badly, but when they parted about ten o'clock he had not vomited. My second patient had slept well during the night and had only been aroused early that morning, by a desire to evacuate the bowels. I prescribed the same remedies as for my first patient. I hurried to my first patient and found him dying. He died two hours later, within twelve hours from the time he and his companion separated the night before, and within nine hours from my first visit. I returned immediately to my second patient and found that vomiting had come on during

my absence and the purging had also increased. He seemed quite prostrate and very anxious. Really I did not know what to do. With a very limited experience, for I had only graduated eighteen months before, all alone in a country place, having just left a corpse and now standing before a most probably prospective one, you may well imagine my feelings. If I had never before appreciated the responsibilities of my profession, it is needless to say that I now realized them all. Opening my little armentarium, and thinking all the while what I should give, I could conjure nothing nor select anything more than what I had already given him. During my perplexity, the patient's old mother suggested that injections of red oak bark tea might be of service. I eagerly accepted the suggestion. The old lady knew how to make and give the injection, so I left to consult my books, promising to return soon. When I reached home there was another call, which I found to be a similar case. Within four or five days I received seventeen calls to cholera patients, all of them oyster dredgers and coming from the affected boats. I gathered up my journals and read them as well as I could on my route, while my boy drove. The different authors did not agree any better then than now, and I found no encouragement in my dilemma. Opium seemed to be the only thing agreed upon, but I had tried it and seen it fail. I had already learned that time was valuable and action must be prompt. I was constrained to believe that the tendency to exhaustion could best be met by a stimulation, and for that purpose I combined chloroform, tincture of camphor, tincture of capsicum, tincture of opium and brandy: of which I gave liberally and frequently. I was pleased with the effect. It not only stimulated the patient but it relieved the cramps, and, I believe had a controlling influence over the vomiting. At any rate sixteen of the seventeen cases recovered. To revert to my second patient; when I returned I found him much relieved of the purging and in every way better, and by the next morning he was well. I have no doubt but the red oak bark injections were of great benefit to this patient. I adopted it in all the other cases.

This little outbreak of cholera, a partial account of which is here given, did not last more than two or three weeks, and in accord with its peculiar characteristics, the greatest virulence and mortality were in the beginning. The cases I saw were not in the places infected, but had been removed to their homes many miles away. There was but one case in which I had any suspicion of contagion, and that was the wife of one of my patients, who had a very slight gastro-intestinal irritation.

Dr. A. C. Pole read a paper entitled,

A CONTRIBUTION TO THE LITERATURE OF FOREIGN BODIES IN SURGERY.

On September 7, 1885, G. W., who had been assaulted by a crowd of roughs, presented himself to Dr. Pole with an incised wound between the anterior and upper part of the auricle and the temporal bone. The wound was examined and cleaned, and as a foreign body was neither seen nor suspected, the wound was stitched and dressed, and in a few days it was healed by primary union. Two years later the patient had a discharge from his ear, and behind a fungus like growth could be felt; what seemed to be a projection of uncovered bone. He was seen by an eminent specialist who attempted at several sittings to remove the "bone," but without avail. Examination from time to time showed that the projecting body was lowering in the auditory canal and becoming slightly movable. September 22, 1892, the patient was anæsthetized, and Dr. Pole removed through the external auditory meatus a piece of dagger blade, measuring  $\frac{3}{4}$  of an inch in length; the point having entered the posterior wall of the canal and penetrated into the mastoid cells to the depth of about  $\frac{5}{8}$  of an inch. The piece of blade had been in this position for seven years, the patient is now quite well. He has been relieved entirely of severe neuralgic pains from which he had suffered for several years past.

Dr. J. M. T. Finney related a case of  
SEVERED FINGERS RE-APPLIED SEVEN  
HOURS AFTER ACCIDENT, WITH PERFECT  
UNION AND RECOVERY OF  
MOTION AND SENSATION.

On Jan. 2, 1890, the patient came to the Johns Hopkins Hospital about half

past twelve o'clock, giving the following history: He was a machinist by trade, and was running the engine in a tin shop, in the absence of the regular engineer. He went to work about five o'clock that morning; and, a little later, while going about a machine used for chopping blocks of tin, he dropped something, and while stooping down to pick it up, his hand slipped under the knife and the ends of the middle and ring fingers were cut off. The middle finger was cut off just beyond the last joint. The joint was opened. The ring finger was cut off just above the root of the nail. This occurred, the man said, about half past five o'clock. He wrapped up the stumps and went home, where his wife covered the wounds with beeswax. He arrived at the Hospital at the time previously stated. I asked him where the stumps of the fingers were, and he produced them wrapped up in a piece of newspaper. They were very cold, and almost frozen. I placed them in a basin of warm water, using no antiseptic, because bichloride or carbolic acid might cause a layer of coagulation-necrosis and prevent union. I scrubbed up the stumps of the fingers with a 1-2000 warm bichloride solution, then I carefully rinsed them off in warm water. This process consumed at least half an hour. Then I took a shaving off the ends of the fingers, so as to have a perfectly fresh surface. The stumps were treated in the same manner. The bone was scraped. I then sewed the ends on, using four stitches in each case. I then applied strips of *crepe lisse* with collodion the whole length of the fingers on each side. These held the severed portions in exact apposition. Then I used other strips around the fingers, binding them together and then applied a palmar splint and used a large absorbent dressing. He came back in a week; and when the dressing was removed the fingers looked very well. I re-applied the dressing and told him to report in another week. Dr. Brockway saw the case on his return, at the end of the second week. He took out the stitches and removed the dressing, and said that there was no doubt but that the fingers had united, and that the man seemed to have sensation at the ends of the fingers, although he thought that this sensation might have been transmitted. The man then disappeared

entirely from view. He returned about a month ago with an injury to his other hand. It is difficult to say, at first sight, which hand was injured. There is a slight motion in the joint which was opened, and the sensation in the fingers is perfect.

Dr. Randolph Winslow: "This case of Dr. Finney's calls to my mind a case which I had about fifteen years ago. I was called one day to see a woman who followed the occupation of an upholstress. She had chopped the end of her thumb off with a hatchet, perhaps half an hour before I saw her. Upon making inquiry about the missing piece, I was told that it was about the floor somewhere. I hunted it up, cleaned it, put it on with adhesive strips, and it is there to this day. It is rather an important matter that we should replace these lost parts, and in many cases we will have success. I have a number of times replaced parts which were essentially cut off, attached by a minute portion of skin, with successful union."

WM. T. WATSON,

951 N. BROADWAY, BALTIMORE.

Secretary.

## The Medical Digest.

### HERNIA.

DR. MARCY, of Boston, who is well known as a surgical authority, and a special contributor upon the subject of hernia, read an interesting paper upon the cure of inguinal hernia in the male. He offered as the special reason for the introduction of this subject the fact, that this variety of hernia was still considered by the larger number of surgeons of such extreme difficulty in cure that surgical measures were to be advised only most exceptionally when the integrity of the intestine was not endangered.

Dr. Marcy dwelt at some length upon the anatomical construction of the parts involved, emphasizing the normal obliquity of the inguinal canal which, although always sufficiently patent to allow free mobility of the cord and its vessels, was so disposed that the intra-abdominal pressure in every position of the body was ever maintained at right angles to its long axis, keeping its walls in apposition, analogous to the entrance of the ureter into the bladder. This was demonstrated

by a large number of photographic illustrations of carefully prepared anatomical dissections projected upon the screen, showing the normal relationship of the parts, and especially emphasizing the structures which make up the posterior wall of the inguinal canal. The author dwelt at considerable length upon the incipient changes incident to inguinal hernia and traced the pathological conditions which ensue as the disease becomes pronounced, showing that these were always in ratio with the departure from the normal line of the inguinal canal, which causes a deflection of the intra-abdominal pressure so at last it falls in the line of the opening instead of at right angles to it.

The problem presented to the surgeon for the cure of hernia is the reconstruction of the canal to its normal condition. Until a very recent period this had never been attempted or considered within a safe surgical limit, and it is easy to understand without special demonstration that the closure of the structures which make up the abdominal wall external to the canal must ever leave a wide funnel-shaped opening in the line of the intra-abdominal pressure, thereby inviting a return of the hernia and hence the failure to cure.

The reconstruction of the posterior wall of the canal is rendered possible by aseptic surgery and the use of buried animal sutures. The first permits a safe dissection of the parts, while by the proper use of buried tendon sutures, the posterior wall of the canal may be restored, strengthened, and re-enforced, and the lower border of the internal ring is narrowed and closed in quite upon the cord. Before doing this, however, when the peritoneal sac is at all large, it is to be enucleated to its very base, put upon tension, ligatured or sutured, and resected. The coaptation of the deep structures is conveniently effected by a line of deep double sutures, or a row of running sutures taken deeply through the tissues from side to side. The cord is then replaced and the external structures are coaptated in a similar manner by a row of sutures taken through Poupert's ligament and the conjoined tendon, closing the structures quite down upon the cord and thus restoring the external



ring. The superficial structures are coaptated with continuous tendon sutures. "In a similar manner the skin is closed by a continuous buried suture. The needle, straight or curved, is best held in the fingers and is carried through the deep layer of the skin entering upon the opposite side of the wound exactly opposite its point of emergence in taking the last stitch. This I have called the *parallel suture*, since the needle is carried through the skin parallel to the line of the incision. It will be noted, however, when the points of entrance and emergence are exactly opposite that the suture lies in the wound transversely, and, if for purpose of demonstration, the wound is allowed to remain only partially closed, the suture lies in parallel lines, like the rounds of a ladder, at right angles to the long axis of the wound.

Dr. Marcy carefully dries the parts, dusts with iodoform or aristol, and hermetically seals it with iodoform collodion, reinforced with a few fibres of cotton. An aseptic wound thus treated must remain aseptic, emphasized by the author as follows: "*the sine qua non*," otherwise failure must ensue.

Aseptic sutures, aseptically applied, in an aseptic wound, aseptically maintained.

Dr. Marcy believes these conditions should be accepted as axiomatic in all wounds made in aseptic structures, but that they apply with even greater force to hernia than probably to any other operation, since an unclosed wound necessitates drainage and protective dressings, and wounds of the groin are confessedly the most difficult to maintain aseptic.

Dr. Marcy called attention to another important advantage derived from the use of the aseptic animal sutures when properly prepared and buried in the tissues. The histological changes which supervene have been demonstrated to consist of the proliferation of leucocytes which invade more or less rapidly the suture material, becoming themselves transformed into connective-tissue cells, and ultimately in a measure replacing the suture with a band of living connective-tissue. These changes were first noticed to supervene about the animal ligature when applied to the larger vessels, and many years ago Dr. Marcy instituted a

series of comparative, abundantly demonstrating that similar changes ensued along the line of aseptic sutures when buried in well vitalized structures. These conditions of themselves demonstrate the greater value of tendon sutures, since silk, when aseptic, is encapsuled and never replaced by normal structures.

Dr. Marcy regretted the impossibility of treating the subject in extenso, but referred to his work upon hernia,<sup>1</sup> just published by the Appletons, in which this subject is fully discussed.

<sup>1</sup> *Anatomy and Surgical Treatment of Hernia-Quarto*, with 66 full sized illustrations. Dr. Henry A. Marcy, A. M., M. D., LL. D., Boston, Mass.

### CANCER, AN INFECTIOUS MIASMATIC DISEASE.

IS cancer due to special micro-organism, or is it not rather due to deviation in the normal evolution of the cells composing our tissues? This is one of the questions of the day, well worthy of receiving the attention of investigators, in view of its gravity. It may, in fact, be placed in the front rank of the affections which do not spare. Hydrophobia is not worse; tetanus and septicemia are sometimes cured; cancer, never. Surgery may prolong life, and give ease to the sufferer; it cannot perform a radical cure. It is evident that we do not know what cancer really is, but we feel that we are on the eve of finding out; apparently approaching a knowledge of prevention, if not cure. Normandy appears to be one of the sections of France most liable to this disease; more die from it than from tuberculosis.

The specific cells of Lebert do not satisfy anyone. Neither Coburn's theory, which considers that tumors, cancers in particular, are due to foetal inclusions in the mesoderm of the debris of the ecto or ento-derm, which may remain inactive or under some unknown influence, multiply, proliferate and set up carcinoma. Thus are explained tumors of epithelial nature, that is to say, ecto or ento-dermic growths, arising in a tissue which contains no epithelioma. The objections to this theory are numerous. Why should these inclusions wait for a certain age for evo-

lution? Why do they not always evolve? Why do they not remain local? Dermoid cysts, fistulas by foetal inclusion, whose origin is undeniable, do not become general. They do not involve, save in exceptions due to excessive volume, any special cachexia.

On the other hand, for some time past, we have known that a greater part of the diseases which come under the notice of medicine or surgery, are due to infections, to external agents, parasites, as in syphilis, tuberculosis, charbon, farcy, etc. These are diseases which, excepting perhaps syphilis, we can reproduce at will. These are all due to micro-organisms. These all evolve according to the same process, beginning first with a wound of the surface, giving access to germs which multiply and form a specific colony. For a time the colony remains localized, by degrees they involve the lymphatics, which may be considered as the "strainer" of the circulation, and accumulate in the lymphatic glands. If they can be suppressed at this time, the organism at large is safe, but, as generally happens, they pass these points, and get into the blood current, and the entire organism becomes invaded, and distant organs suffer. The evolution of cancer does not differ from that of other diseases. At first a local lesion, it proceeds slowly by the lymphatic system and at length invades the entire system. Supposing that the cause of the disease is of the same nature, that cancer is due to a telluric cause; it is only a very probable hypothesis, about to be demonstrated.

Coccidian disease in rabbits, first brought this subject to the notice of pathologists. Rabbits are frequently attacked by an infectious disease which kills the young, and invades the older ones; it consists anatomically in the presence of grayish tumors in the liver, a kind of tubercle enclosing a large number of coccidians. These are oval bodies similar to the ova of the helminth, and belonging to the protozoa class. They are not inoculable from one animal to another, since the flesh of the rabbits may be eaten with impunity. It is only inoculable after having undergone a transformation outside of the animal. In the rabbit it is a voluminous oval cell with granular contents. Outside of the

animal in favorable conditions in sand, air or water between 15° C. and 25° C. it undergoes metamorphosis. The contents separate into four spores furnished with a very resisting envelope. Each spore encloses two falciform and very delicate embryos, which in turn give rise to new parasites in the rabbits which ingest them. It is, in short, a miasmatic disease, recalling malarial infection. Supposing the cancer germ to be of similar nature would explain why attempts at inoculation (direct) have failed. Swallowed with the food the spores pass into the alimentary canal and the epithelial cells of the intestine and biliary canals become infected. The young coccidia, small round bodies, grow and develop into the adult oval parasites. Side by side with this cycle of development, there exists another discovered by Pfeiffer. The round bodies divide into a number of segments which take the form of crescents. These probably serve to generalize the affection in rabbits attacked with the disease, and are the auto-infective agents.

In man there is a similar coccidian disease due to the coccidia of Laveran which show further a flagellar stage, which is not found in the rabbits' germ but which has been seen in the parasite in other animals. An important character of the disease in rabbits, is the tendency to excessive epithelial proliferation in the attacked organs. Therefore Malassez some time ago sought for sporozoids in cancerous tissue. He was followed by others in this line and parasitic psorosperms were described as being found in cutaneous affections and epithelial diseases.

Last year M. Foa, of Turin, described afresh, bodies of parasitic aspect, in cancer cells. In the Annals of the Pasteur Institute, Soudakewitch has mentioned the same forms found in fifty cases of cancer. Foa, Borrell, have found them in epitheliomas. It seems that doubt on the subject is no longer possible. Metchnikoff thinks the parasites of cancer are most easy of demonstration. They resemble greatly, if not entirely, the coccidia of the rabbit. The principal difficulty is that, so far, the falciform stage has not been noticed in cancer. If the coccidia are not directly contagious, they may be so, without the body, but especi-

ally in proximity to it. This might explain the transfer of the disease to the penis, from uterine cancer, the vagina serving as a culture bed. As in all other contagia account must be taken of the soil as well as of the germ. Perhaps this has been neglected in the case of cancer. Evidently the infectious agent may invade all organisms, determining different forms and reactions, sarcoma in the young, epithelioma in adults, or again schirrhous of slow evolution in the aged. But even as in other affections, cancer does not invade all organisms exposed to the cause. It affects some. Why? Biological chemistry may perhaps find an answer.

Cancer, as has been known for some time, is especially met with in arthritic individuals, and the author thinks that probably the prevalence of arthritic diseases, and the inordinate use of acid cider, which by weakening the digestive apparatus, may provide a suitable soil for the parasite, may account for the prevalence of the disease. (As far as Normandy is concerned) whatever be the cause, cancer will soon be classed with the diseases due to infected food.—François Hul, *La Normandie Medicale*.

**DOES THE PREVAILING METHOD OF HYDROTHERAPY NEED REFORM.**—The majority of the specialists will negative the above question, as they hold the system to be complete, and not in need of supplementary measures.

Dr. A. Schleicher debates this question in *extenso*. We give his conclusion: In regard to the frequency of the applications, one does not easily believe that too much can be made of a good thing. Too frequent use should be avoided. The fundamental principle is to permit each reaction to run its full course before a new application. The course is not run so speedily as is usually thought. A partial bath (not the whole body) in the morning should suffice for the day; at the most, only light treatment in the afternoon, for instance, the use of a spray. Some interval should elapse between the recurrence of treatment, in short, time must be allowed the organism to utilize the thermic stimulation. What can be expected from thermo-therapy in febrile diseases has been developed by Fröhlich, who shows that the antithermic and antiphlogistic

treatment must be dropped, and that the body washings are only permissible for febrile diseases. The duty of the physician is to guard against an over-estimation of the merits of hydrotherapy. We should guard ourselves from one-sided judgments; the water-cure institution should be the sanatorium, in which all the factors of nature-cure can be appropriately estimated. Our criterion must be the great biological law. In weakness, stimulate the vital functions, promote the equal balance and restrain excessive vigor.—*Deutsche Medizinische Zeitung*.

**ERYTHROMELALGIE.**—Of this disease there have been recorded twenty-six cases. It attacks men of middle age, whose laborious occupations seem to be the predisposing cause. The two principal symptoms are pain and reddening of the extremities; the feet rather than the hands. The attack begins with violent burning pains, soon followed by reddening, heat, and swelling of the affected part. Warmth aggravates the trouble, whilst cold ameliorates it; consequently in summer the symptoms are more intense than in winter. Also laving the member in cold water has a beneficial effect.

A postal guard was suddenly attacked with the disease in both arms, but more painfully in the left; and after the lapse of many weeks the feet were also involved, so that the pressure of the boot was unbearable. Both arms had a feeling of numbness and weakness. The patient, a man previously in the enjoyment of good health, had no fever, neither in the beginning nor during the course (eighteen months) of this attack. On repeated examinations nothing abnormal in regard to the urine or the internal organs was discovered.

It is not improbable that many of the cases classified as erythromelalgic should be classified as chronic, or diffused habitual erythema. We have to consider erythromelalgia as that form of angioneurosis which is the direct opposite of symmetrical local asphyxia of the extremities, or symmetrical gangrene. As to treatment, there is no reliable remedy; faradisation has been tried, as also the application of cold. I have found acetanilide of some use.—Senator, in *Berliner Klinische Wochenschrift*.

**SELF-INFLICTED WOUNDS IN HYSTERICAL PATIENTS.**—Thiersh tells of a peasant woman afflicted with burns; on arrival at the hospital she had been thoroughly searched, but nothing suspicious was found upon her. Every precaution was taken to prevent her touching the ulcerations, and a cure seemed assured, when new ulcerations appeared. A new transplantation was made, the patient closely observed, but while the bandages seemed undisturbed, pressure spots appeared, and the fact developed that she practiced rubbing over the bandages.

In another case, the patient when accused of preventing the healing of the wounds indignantly denied the fact.

*Apropos* of the foregoing, we think the general opinion that patients add to their wounds purposely is ill founded. In the case of the peasant woman the abnormal sensations in the thorax, resulting from the burns, induced her to seek relief by rubbing. In these cases of hysteria there is a close analogy to the so-called stigmatization. Louise Lateau, who belonged to the order of Francis d' Assisi, had hemorrhages from her stigmata every Friday. Probably the bladder-like appearance she showed on her hands and feet were of the nature of pemphigus hystericus. The conjecture seems well-founded that in the case of the stigmatics there is question of the concurrence of hemorrhagic diathesis with hysteria.—*Prager Medicinische Wochenschrift*.

**CLINICAL FORMS OF PERNICIOUS CHOLERA, DURING THE EPIDEMIC OF 1892 IN PARIS.**—Galliard classifies the cases, based on the rapidity of their evolution, in three classes.

1. The malignant (foudroyant) form, that which kills in twenty hours at the furthest, but which may be prolonged or even cured by the intra venous injection of Hayem's serum.

2. The galloping form, which kills in five days at most, but which also may be prolonged, and sometimes even cured by transfusion and sometimes without. This galloping form should be considered, according to Galliard as the type of the epidemic of 1892. This differs from the first variety principally by the fact that it is more amenable to treatment, on account of leaving more time to act.

3. The slow form, three varieties:—  
(a) Gastro-intestinal, the one curable form of this class.  
(b) Ataxo-adyamic, always mortal.  
(c) Marantic, also mortal.

This slow form may last three weeks. The termination may be either by a state of peripheral algidity (with or without central hypothermia) or by congestion of the nervous centres, or from a complication, such as pneumonia.

The exanthem of cholera popular erythema) comes on on an average about the tenth day. It has no prognostic signification.

Galliard attributes three cures to transfusion, in the malignant form; and estimates that thirty of his patients have been saved by this means. None of them had more than two transfusions, whilst in the fatal cases, the injections often exceeded two, and in one instance six were given.

The 397 cases observed offered the following clinical particulars.

1. Not a single case of cholera sicca.
2. Premonitory diarrhœa often wanting in rapid cases.
3. The greater number of patients being in the collapsed stage it was often impossible to recognize the succession of the classical periods.
4. In the collapse, beyond the classical symptoms there was noted painful contractions of the scrotum, a symptom which seems to have been passed over unnoticed, by authors generally. Very low rectal temperature, also observed at this time.
5. The terminal asphyxic phenomena existed in a large number of cases.
6. Cardiac weakness appeared to be constant.
7. Nervous phenomena frequent.
8. Congestive symptoms were developed several times, generally in the brain and membranes; the lungs, generally escaping the complication.
9. Reaction did not conform to the classical descriptions, *i. e.*, coming on spontaneously, but was the result of violent therapeutical perturbation by intravenous injections, but then it was complete; revival, restoration of the central functions, return of speech, urination, pulse, and temperature.
10. The typhoid reaction of authors was not observed.—*La Medicine Moderne*.



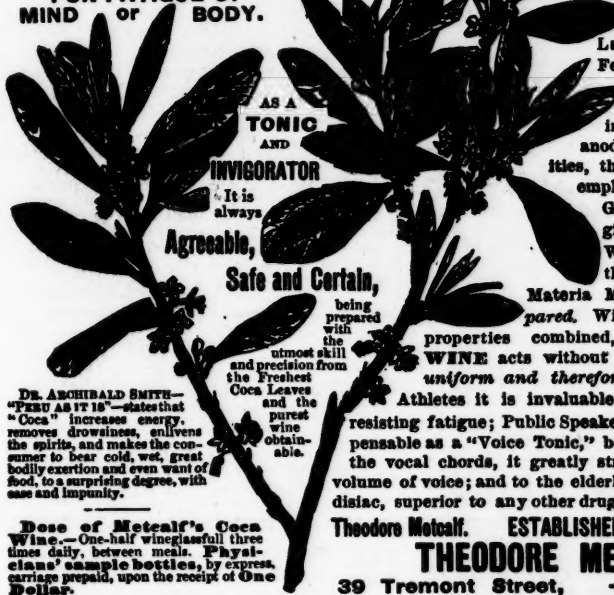
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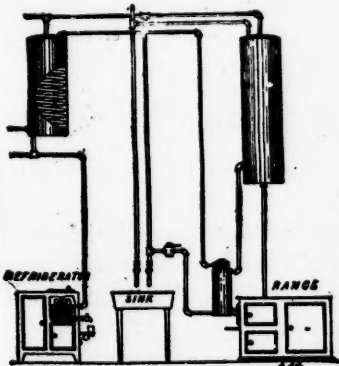
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